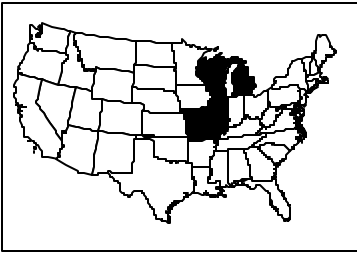
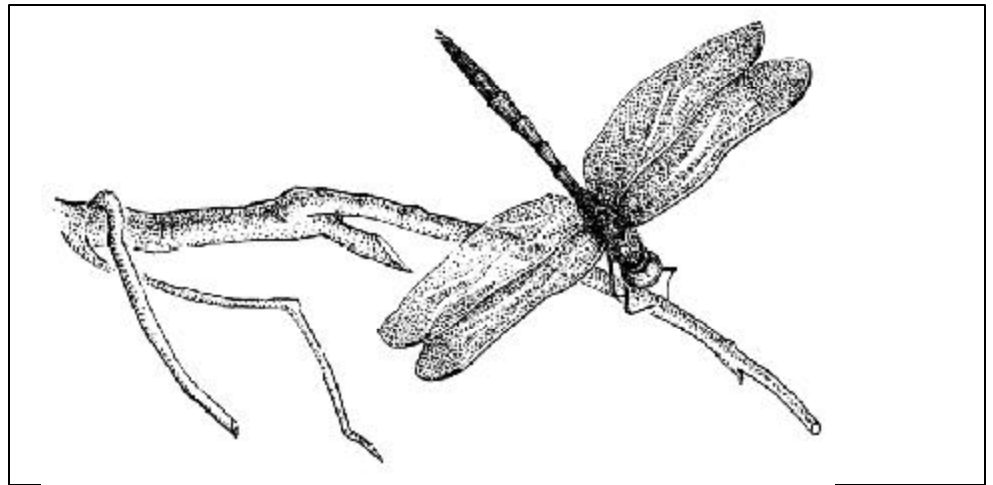




## Endangered Species Facts



States in which the Hine's emerald dragonfly is found. The Hine's emerald dragonfly is also known as the Ohio emerald dragonfly or Hine's bog skimmer.



## Hine's Emerald Dragonfly

The Hine's emerald dragonfly is an *endangered species*. Endangered

species are animals and plants that are in danger of becoming extinct. *Threatened species* are animals and plants that are likely to become endangered in the foreseeable future. Identifying, protecting, and restoring endangered and threatened species is the primary objective of the U.S. Fish and Wildlife Service's endangered species program.

### What is the Hine's Emerald Dragonfly?

#### Why Save a Dragonfly?

Dragonflies play an important role in nature. They catch and eat smaller flying insects, including mosquitoes, biting flies, and gnats. In its immature stage (nymph), a dragonfly is an important food source for larger aquatic animals such as fish. They serve as excellent water quality watchdogs, are part of our nation's natural heritage, and add beauty to our world.

- **Scientific Name** - *Somatochlora hineana*
- **Appearance** - This dragonfly has brilliant emerald-green eyes and a dark brown and metallic green body, with yellow stripes on its sides. Its body is about 2.5 inches long; its wingspan reaches about 3.3 inches.
- **Range** - Today, the dragonfly can only be found in small sites in the lower DesPlaines River valley in Illinois, in Door County, Wisconsin, and in the Hiawatha National Forest in the Upper Peninsula of Michigan. Recently, a new discovery of the Hine's emerald dragonfly was also made in Missouri.
- **Habitat** - The Hine's emerald dragonfly lives in calcareous (high in calcium carbonate) spring-fed marshes and sedge meadows overlaying dolomite bed-rock.
- **Reproduction** - Adults males defend small breeding territories, pursuing and mating with females who enter. The female lays eggs by repeatedly plunging the tip of her body into shallow water. Later in the season or the following spring, immature dragonflies, called nymphs, hatch from the eggs. The nymph lives in the water for 2 to 4 years, eating smaller aquatic insects and shedding its skin many times. The nymph then crawls out of the water and sheds its skin a final time, emerging as an flying adult. The adults may live only 4-5 weeks.

## Why is the Hine's Emerald Dragonfly Endangered?

- **Habitat Loss or Degradation** - The greatest threat to the Hine's emerald dragonfly is habitat destruction. Most of the wetland habitat that this dragonfly depends on for survival has been drained and filled to make way for urban and industrial development.
- **Pesticides and Other Pollutants** - Contamination of wetlands by pesticides or other pollutants also poses a threat. The dragonfly depends on pristine wetland or stream areas, with good water quality, for growth and development.
- **Changes in Ground Water** - Development that decreases the amount or quality of ground water flowing to the dragonfly's habitat threatens its survival because it depends on spring-fed shallow water to breed.

## What Is Being Done to Prevent Extinction of the Hine's Emerald Dragonfly?

- **Listing** - The Hine's emerald dragonfly was added to the U.S. List of Endangered and Threatened Wildlife and Plants on January 26, 1995. It is illegal to harm, harass, collect, or kill the dragonfly without a permit from the U.S. Fish and Wildlife Service.
- **Recovery Plan** - The U.S. Fish and Wildlife Service is developing a recovery plan that describes actions needed to help the dragonfly survive.
- **Research** - Researchers are studying the Hine's emerald dragonfly to find the best way to manage for this species and its habitat.
- **Habitat Protection** - Where possible, the dragonfly's habitat will be protected and improved. Private landowners may be asked to help protect the dragonfly's habitat.
- **Public Education** - Public education programs will be developed to raise awareness of the dragonfly's plight. Residents living near prime dragonfly habitat may be contacted by an "ambassador" and provided with information about the dragonfly.

## What Can I Do to Help Prevent the Extinction of Species?

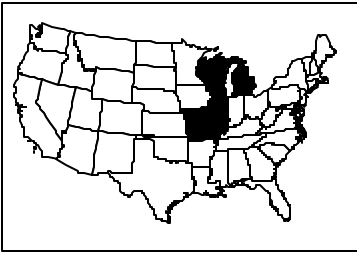
- **Learn** - Learn more about the Hine's emerald dragonfly and other endangered and threatened species. Understand how the destruction of habitat leads to loss of endangered and threatened species and our nation's plant and animal diversity. Tell others about what you have learned.
- **Join** - Join a conservation group; many have local chapters.

## How Can I Get More Information?

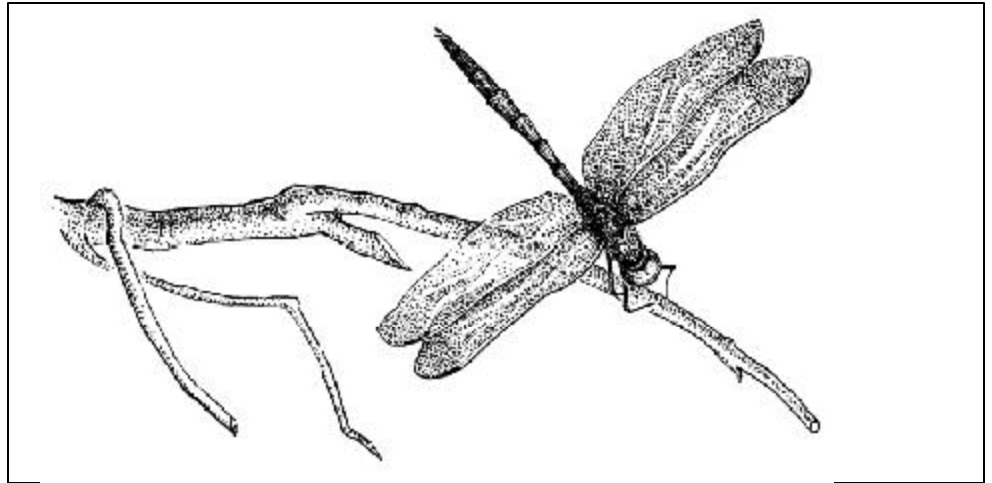
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Division of Endangered Species  
Bishop Henry Whipple Federal Building  
1 Federal Drive  
Fort Snelling, Minnesota 55111-4056  
(612) 713-5337  
<http://www.fws.gov/r3pao>



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